WEST AFRICAN JOURNAL OF MEDICINE

CASE REPORT

Conjunctival Kaposi's Sarcoma in HIV-positive Heterosexual Nigerian Woman – A case report

Le Sarcome conjonctival de Kaposi dans Femme nigériane, Hétérosexuelle et VIH-Positif – un rapport de cas

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ABSTRACT

BACKGROUND: **Neoplastic conditions are increasingly been encountered in HIV/AIDS patients. Till date only two cases of conjunctiva Kaposi sarcoma (KS) have been reported in the background of HIV and both in males.**

OBJECTIVE: **To present a 27-year-old African woman with histologically proven conjunctival KS and marked CD4+ cell depletion and to reinforce the fact that KS is an important differential of conjunctival tumour especially in the background of immunosupression in Africa.**

METHODS: **A 27-year-old housewife, presented to the hospital with a three-month history of a rapidly growing tumour attached to the right upper eyelid, cough and weight loss. Patient was given full workup including xrays, HIV status determination and histological assessment.**

RESULTS: **She was markedly wasted, with widespread pruritic papular skin lesion, and florid oropharyngeal candidiasis. Clinical and chest x-ray findings were suggestive of bilateral lower lobar pneumonia. Screening and confirmatory tests were positive for human immunodeficiency virus (HIV) with CD4+ lymphocyte cell count of 120 cells/ml. Histologic report of the biopsy revealed the mass to be a conjunctival KS. Patient was subsequently commenced on antibiotics and antiretroviral combination therapy. The mass had regressed in size considerably along with improvement in her clinical condition at six months review. She is still being followed up at the medical clinic.**

CONCLUSION: **This is the first reported case of conjunctival KS in an HIV positive African woman. KS should be considered as a possible differential of conjunctiva mass, especially if the patient is HIV positive irrespective of patient's gender. WAJM 2008; 27(1): 50–52.**

Keywords: **Conjunctiva, Kaposi sarcoma, HIV, Nigeria, Case report.**

RESUME

CONTEXTE: *Les conditions néoplasiques sont de plus en plus a été rencontré dans les malades de VIH/SIDA. Jusqu'à ce que dater seulement deux cas de sarcome de Kaposi de conjonctive (KS) a été rapporté dans le fond de VIH et les deux dans les males.*

OBJECTIF: *Présenter une femme africaine de 27 ans avec KS conjonctival et marqué CD4 + l'épuisement de cellule.*

MÉTHODES: *Une femme au foyer de 27 ans, présentée à l'hôpital avec une histoire de trois-mois d'une tumeur rapidement croissante a attaché à la bonne paupière supérieure, la perte de toux et poids. Le malade a été donné la détermination de statut de VIH et l'évaluation histologique workup à plein y compris xrays.*

RÉSULTATS: *Elle a été nettement gaspillée, avec la lésion répandue de peau de papular de pruritic, et oropharyngeal Candidiasis fleuri et la pneumonie de lobar plus basse, bilatérale et eue avec les tests positif VIH. Le rapport de Histologic de la biopsie a révélé la masse pour être un KS conjonctival. Le malade a été commencé par la suite sur les antibiotiques et la thérapie de combinaison d'antiretroviral. La masse avait reculé dans la taille fortement avec l'amélioration dans sa condition clinique à six mois réexamine. Elle est donnée suite à toujours à la clinique médicale.*

CONCLUSION: *Ceci est le premier cas rapporté de KS conjonctival dans un VIH femme africaine positive. KS devrait être considéré comme un écart possible de masse de conjonctive, surtout si le malade est VIH.* ***WAJM 2008; 27(1): 50–52.***

Mots Cles: *La conjonctive, le sarcome de Kaposi dans une femme, VIH.*

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Abbreviations: HIV, Kaposi's Sarcoma.

INTRODUCTION

Kaposi's Sarcoma is the most common HIV- related tumour. It is a significant cause of morbidity and mortality, especially in sub-Saharan Africa.[1] Kaposi Sarcoma (KS) is a tumour of the reticuloendothelial system and was one of the first recognised sequelae of HIV infection, especially among male homosexuals.[2,3] Prior to the advent of HIV epidemics, KS was most notable among the elderly men (above 65 years) of the Mediterranean or Middle East decent,[4] while in Africa it accounted for about 9% of all cancers in men from different parts of sub-Saharan region especially in the eastern Congo, Uganda, part of Cameroon and South Africa.[5] Rough estimates have shown that about 90% of individuals with KS in USA in the recent times are between ages 20–54 years. In this same age group KS occurred in just about 11% between the periods of 1973–78 prior to HIV/AIDS diagnosis.[6] Recent evidence from Africa now reflects increasing incidence of KS in females and this is possibly related to the HIV pandemic.[1]

Although KS can occur at any time in the course of the HIV infection, it is more common with declining immunity.[7] Factors that have been reported to influence the incidence of KS in HIV infected patients include the degree of viral load, disease duration and the level of $CD4^+$ lymphocyte depletion in the body. Kaposi Sarcoma lesions often appear in sun-exposed areas, and have increased propensity to occur in areas of trauma (koebner phenomenon).

Till date only two reported cases of conjunctival KS in HIV infected individuals exist in literature and both occurred in males.[8,9] In this report we present a 27-year-old African woman with histologically proven conjunctival KS and marked $CD4^+$ cell depletion though the viral load could not be ascertain, because facility for this test is not available in our centre. This report is hoped to reinforce the fact that KS is an important differential of conjunctival tumour especially in the background of immunosupression in Africa.

Case presentation

A 27-year-old housewife, presented to the hospital with a three-month history of a rapidly growing tumour attached to the right upper eyelid, cough and weight loss. The tumour was first noticed as a small growth about the patient's fingertip. At presentation the tumour was about the size of an average guava fruit 4cm X 5cm (Figure 1). The mass bled minimally on contact. There was no eye discharge or associated pain, except for mild frontal headache that did not disturbe her day-to-day activity.

The patient had been coughing since almost the same period. The cough was productive of small quantity of yellowish muco-purulent sputum. She admitted to having lost significant weight, which was assumed to be stress induced with lack of rest. There was no previous trauma to the eye and no exposure to irradiation. She was a hairdresser by occupation and had been married for seven years without a child. Her husband died three years earlier of an undisclosed chronic illness. She had not been previously treated for pulmonary tuberculosis and had no contact with a chronic cough index. She gave no history of diarrhoea but has low-grade fever. Patient had earlier been involved in multiple heterosexual habits (three males) before her marriage but had never been transfused with blood or blood products.

Significant findings at presentation were pallor, evidence of weight loss, absence of enlarged peripheral lymph nodes or finger clubbing. She had florid oral candidiasis while other systemic findings were unrevealing. There was no mechanical ptosis of the right upper lid with the mass obscuring the visual axis thus making tonometry assessment difficult.

Examination of the chest and chest x-ray showed bilateral crepitations and bilateral infiltrate respectively, but no evidence to suggest open pulmonary tuberculosis. Patient's packed cell volume was 30%, total WBC of 5,000/cc (differential of Neutrophil – 37%, lymphocytes – 50% and Eosinophil – 13%). Confirmatory HIV test was positive with CD 4^+ lymphocyte count of 120 cells /ml. The level of viral load could not be ascertained due to unavailability of facility in our hospital. Histological report of the conjunctival biopsy revealed that she had a conjunctival Kaposi's sarcoma. She was given oral ciprofloxacillin and co-trimoxazole for two weeks and three months later commenced the prescribed antiretroviral combination of lamivudine, starvudine and nevirapine due to initial financial constraint. The mass had regressed in size considerably at 6 months review and is currently being followed up at the medical out patient clinic.

DISCUSSION

The burden of HIV infection and AIDS is increasing worldwide and is greatest in the developing world especially those of the sub-Saharan Africa, and no doubt more neoplastic conditions are frequently encountered.[1,3] Whilst KS is the most commonly reported HIV-associated-malignancy, till date only two cases of conjunctiva KS in the background of HIV infection have been reported, both in males.[8,9] The existence of only two reported cases of conjunctival KS in individuals infected with HIV infections confirms the rarity of this disease condition. In the absence of immunosupression, KS is three to four times more common in men, while with immunosupression the gender difference is not so marked.[1] This is the first reported case of bulbar conjunctival KS in an HIV infected heterosexual African woman. She was a young married woman with no prior diagnosis of HIV infection. Results of both the preliminary and confirmatory serological tests showed that she was infected with human immunodeficiency virus. There was clinical as well as laboratory evidence of marked immunosupression: florid oral candidiasis, widespread papular pruritic skin lesions, widespread coarse crepitations (bilateral lobar pneumonia), and $CD4^+$ lymphocyte count of 120 cells/ml. The markedly reduced $CD4^+$ lymphocyte count with florid oral candidiasis in this patient support the reports that malignancies especially KS are very common in the background of severe immuno suppression.[5,7] The reduction in tumour size with combination antiretroviral therapy is not surprising as there are documentations of KS resolution with HAART.[10] This report supports earlier publications of increasing trend of KS in African female patients[1] and is likely to

be due to the HIV epidemics and the scarcity of highly active antiretroviral therapy (HAART) in this part of the world.[11] The emergence of HAART era has greatly reduced the incidence of KS, especially in the regions of the world where this is routinely used.[2,10]

Some reports have tried to relate occurrence of KS with high socioeconomic status, multiple sexual partners and history of sexual transmitted disease.[12,13] The subject in this report was of a low socioeconomic status (hairdresser) who had never been treated for sexually transmitted disease, though she had been involved in multiple heterosexual habits before marriage. Although the bilateral pulmonary infiltrate was managed as possible bacterial pneumonia with no diagnostic sputum culture, the patient's response to routine antibiotics, cannot completely rule out the possibility of an infection caused by atypical organism some of which do respond to cotrimoxazole (e.g. pneumocytis carini). This response however confirms our opinion that she did not have open pulmonary tuberculosis, a common phenomenon in our environment but not an invariable accompaniment of HIV infection.[14]

It is note worthy that during the earlier stage of her management, HAART therapy was delayed for close to three months due to limited funds, before she could later procure her antiretroviral medications. Presently she has been enrolled in the free HAART for HIV/AIDS programme of the Federal government of Nigeria to ensure her regular supply of medication. This underscores the need for World Health Organisation and the Governments of resource poor nations to help finance antiretroviral medication. This will go a long way to reduce morbidity and mortality associated with this pandemic viral infection as well as reduces the incidence of HIV-related-KS in sub-Saharan African, as it has been so reported in other parts of the world.[15] The report also highlights the need to consider KS as a possible differential of conjunctiva mass in the background of HIV infection irrespective of patient's gender in this Africa.

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